

MR

Notice of Allowability

Application No.

10/682,379

Examiner

david shay

Applicant(s)

TABOADA ET AL.

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the interview of March 20, 2007.
2. ☒ The allowed claim(s) is/are 1-21,23-26 and 28-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

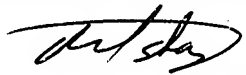
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


DAVID M. SHAY
PRIMARY EXAMINER
GROUP 330

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Bruce Itchkawitz on March 20, 2007.

In the claims:

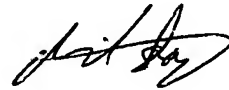
Claims 37-41, 44-46, and 50-66 have been cancelled

The following is an examiner's statement of reasons for allowance: The claims are allowable because one having ordinary skill in the art at the time of the invention would not have designed a device or employed a method to produce the claimed power densities at the claimed depth in the brain, due to the belief of those having ordinary skill in the art at the time of the invention that the transmission of light in brain tissue was about an order of magnitude smaller than determined by applicant's empirically determined transmission. As can be seen by the prior art articles to Pogue et al; Bevilacqua et al; and Firbank et al, while the actual absorption coefficient is rather small ($.01/.02 \text{ mm}^{-1}$, p283, Description of Fig. 15; $.01-.02 \text{ mm}^{-1}$, p4947, Table 1; and $.005/.025 \text{ mm}^{-1}$, p72, table I, respectively) the scattering coefficient is much larger (1.0 mm^{-1} , p283, Description of Fig. 15; $1.0-.8 \text{ mm}^{-1}$, p4947, Table 1; and $6.0/2.5 \text{ mm}^{-1}$, p72, table I, respectively). These values (as they are exponents in the equation expressing the intensity ratio of initial to transmitted) when used to determine the initial power density would

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yield a value in the Kilowatt/cm² range at the cranial surface, which is well into the range that would produce ablation, to produce the claimed energy densities at a depth of 2 cm (20 mm).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



DAVID M. SHAY
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GROUP 330